



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,200	09/04/2003	Brian K. Hamilton	AAI-14256	7998
7590	05/14/2004		EXAMINER FELTON, AILEEN BAKER	
James D. Erickson Autoliv ASP, Inc. 3350 Airport Road Ogden, UT 84405			ART UNIT	PAPER NUMBER
			3641	

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/655,200

Applicant(s)

HAMILTON, BRIAN K.

Examiner

Aileen B Felton

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/4/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawley (3,570,403) in view of Dahmberg et al (4,869,170) and Ewick et al(5,889,228).

Hawley discloses an initiating mixture for use with a bridge wire that comprises zirconium and potassium perchlorate with a resin binder (col. 3, lines 20-25). The density, amounts, and the addition of copper oxide and aluminum are not disclosed.

Dahmberg teaches an initiating mixture for use with a bridge wire that comprises a mixture of copper oxide and aluminum (col. 7, lines 20-30).

Ewick et al teaches that ignition charges can have a lower density such as 49-65 % of its theoretical maximum density and are used with a bridge wire (col. 2, lines 60-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to mix the two igniter mixtures as disclosed by Hawley and taught by Dahmberg together. It is prima facie obvious to combine two compositions, each taught for the same purpose to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423. It would also have been obvious to vary the amounts of the metals and oxidizers

Art Unit: 3641

to achieve a desired result. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation (i.e. "adapted for", "effective to", etc.).

These clauses are essentially method limitations or statements of intended or desired use and do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

3. Claims 6, 7, and 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawley (3,570,403) in view of Dahmberg et al (4,869,170) and Ewick et al(5,889,228) as applied to claims 1-5, 8-11 above, and further in view of Brocart (3,899,973).

Brocart teaches the use of an acrylic resin with an igniter composition (col. 1, lines 60-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the acrylic resin for the resin binder disclosed by Hawley since it Brocart teaches that it is a known binder for use with igniting compositions.

Art Unit: 3641

4. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawley (3,570,403) in view of Dahmberg et al (4,869,170), Ewick et al (5,889,228), and Brocart (3,899,973).

Hawley discloses an initiating mixture for use with a bridge wire that comprises zirconium and potassium perchlorate with a resin binder (col. 3, lines 20-25). The density, amounts, the specific binder, and the addition of copper oxide and aluminum are not disclosed.

Dahmberg teaches an initiating mixture for use with a bridge wire that comprises a mixture of copper oxide and aluminum (col. 7, lines 20-30).

Ewick et al teaches that ignition charges can have a lower density such as 49-65 % of its theoretical maximum density and are used with a bridge wire (col. 2, lines 60-67).

Brocart teaches the use of an acrylic resin with an igniter composition (col. 1, lines 60-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to mix the two igniter mixtures as disclosed by Hawley and taught by Dahmberg together. It is prima facie obvious to combine two compositions, each taught for the same purpose to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423. It would also have been obvious to vary the amounts of the metals and oxidizers to achieve a desired result. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. *In re*

Art Unit: 3641

Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). It would have been obvious to substitute the acrylic resin for the resin binder disclosed by Hawley since it Brocart teaches that it is a known binder for use with igniting compositions. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation (i.e. "adapted for", "effective to", etc.). These clauses are essentially method limitations or statements of intended or desired use and do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is (703) 306-5751. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687. The fax number for submissions before a final action is (703) 872-9326, for after final submissions is (703) 872-9327, and customer service is (703) 872-9325.

Art Unit: 3641

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Aileen B. Felton

Aileen B. Felton